Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 2026

Comparison of the effects of teaching via visual thinking strategies and routine training on lifestyle and hypertension control in hypertensive patients

Protocol summary

Study aim
To compare the effects of teaching via visual thinking strategies and routine training on lifestyle and hypertension control in hypertensive patients

Design
In this study, 76 eligible patients referring to health centers of Birjand were selected through convenience sampling method. The participants were randomly divided into intervention and control groups (using the table of random numbers) and each participant was assigned a code.

Settings and conduct
The research was conducted in the education hall of the health center (number 4) in Birjand. At first, the participants' blood pressure was measured, and the lifestyle questionnaire was completed. In addition to the routine training, the intervention group members received training via visual thinking strategies in five sessions, while the controls received the routine training. After the 5 sessions finished and two months later, the members of both groups completed the lifestyle questionnaire, and their blood pressure was measured. The study was not blinded.

Participants/Inclusion and exclusion criteria
Major inclusion criteria: Age between 18 and 60 years; diagnosis of high blood pressure in the person at least two months earlier; and signing the written informed consent form. Major exclusion criterion: Lack of appropriate auditory, visual, cognitive, and communicative health

Intervention groups
Intervention group (visual thinking): In addition to the routine training, they received training via visual thinking strategies in 5 sessions. Control group (routine training): They only received the routine training.

Main outcome variables
lifestyle; systolic and diastolic blood pressure

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20170316033099N2**
Registration date: **2018-11-21, 1397/08/30**
Registration timing: **retrospective**

Last update: **2018-11-21, 1397/08/30**
Update count: **0**

Registration date
2018-11-21, 1397/08/30

Registrant information

Name
Mohammad Bagher Roozgar

Name of organization / entity
Birjand University of Medical Sciences

Country
Iran (Islamic Republic of)

Phone
+98 56 3239 5680

Email address
roozgar@bums.ac.ir

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2018-01-23, 1396/11/03

Expected recruitment end date
2018-05-24, 1397/03/03

Actual recruitment start date
2018-01-23, 1396/11/03

Actual recruitment end date
2018-05-24, 1397/03/03

Trial completion date

2018-10-02, 1397/07/10

Scientific title
Comparison of the effects of teaching via visual thinking strategies and routine training on lifestyle and hypertension control in hypertensive patients

Public title
Effects of teaching through visual thinking strategies on lifestyle and hypertension control

Purpose
Treatment

Inclusion/Exclusion criteria

Inclusion criteria:
Age between 18 and 60 years Diagnosis of high blood pressure in the person at least two months earlier Signing the written informed consent form Residence in Birjand

Exclusion criteria:
Suffering from acute and advanced disease, such as cancer, which is effective on the blood pressure control program Lack of appropriate auditory, visual, cognitive, and communicative health

Age
From **18 years** old to **60 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **76**
Actual sample size reached: **76**

Randomization (investigator's opinion)
Randomized

Randomization description
A total of 76 participants who met the inclusion criteria were incorporated (using convenience sampling method). Each eligible participant was assigned a code. Using the table of random numbers, the participants were allocated to the intervention or control groups.

Blinding (investigator's opinion)
Not blinded

Blinding description

Placebo
Used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Ethics Committee of Birjand University of Medical Sciences

Street address
Ghaffari Ave.

City
Birjand

Province
South Khorasan

Postal code
9717853577

Approval date
2017-12-03, 1396/09/12

Ethics committee reference number
Ir.bums.REC.1396.239

Health conditions studied

1

Description of health condition studied
hypertension

ICD-10 code
I10

ICD-10 code description
Essential (primary) hypertension

Primary outcomes

1

Description
lifestyle

Timepoint
Before intervention, after 5 sessions of training, 2 months after the last training session

Method of measurement
Lifestyle Questionnaire

2

Description
hypertension

Timepoint
Before intervention, after 5 sessions of training, 2 months after the last training session

Method of measurement
Mercury sphygmomanometer

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group (visual thinking): At first, the lifestyle questionnaire was completed by the members, and their blood pressure was measured. In addition to the routine training, the intervention group members received training on visual thinking strategies in five sessions. After the 5 sessions finished and two months later, the

members completed the lifestyle questionnaire, and their blood pressure was measured.

Category

Behavior

2

Description

Control group (routine training): At first, the lifestyle questionnaire was completed by the members, and their blood pressure was measured. They received the routine training of the center. At the same time with the completion of the fifth session in the intervention group and two months later, the members completed the lifestyle questionnaire, and their blood pressure was measured.

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

Health center number 4

Full name of responsible person

Somaye Binaeian

Street address

Behdari St.

City

Birjand

Province

South Khorasan

Postal code

9717853577

Phone

+98 56 3163 2801

Email

sallybinaeian@bums.ac.ir

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Birjand University of Medical Sciences

Full name of responsible person

Dr Tooba Kazemi

Street address

Ghaffari Ave.

City

Birjand

Province

South Khorasan

Postal code

9717853577

Phone

+98 56 3238 1200

Email

drtooba.kazemi@gmail.com

Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

Birjand University of Medical Sciences

Proportion provided by this source

100

Public or private sector

Public

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

Academic

Person responsible for general inquiries

Contact

Name of organization / entity

Birjand University of Medical Sciences

Full name of responsible person

Somaye Binaeian

Position

MSc Student of Nursing

Latest degree

Bachelor

Other areas of specialty/work

Nursery

Street address

Ghaffari Ave.

City

Birjand

Province

South Khorasan

Postal code

9717853577

Phone

+98 56 3239 5641

Email

sallybinaeian@bums.ac.ir

Person responsible for scientific inquiries

Contact

Name of organization / entity

Birjand University of Medical Sciences

Full name of responsible person

Somaye Binaeian

Position

MSc Student of Nursing

Latest degree

Bachelor

Other areas of specialty/work

Nursery

Street address

Ghaffari Ave.

City

Birjand
Province
South Khorasan
Postal code
9717853577
Phone
+98 56 3239 5641
Email
sallybinaeian@bums.ac.ir

Person responsible for updating data

Contact
Name of organization / entity
Birjand University of Medical Sciences
Full name of responsible person
Mohammad Bagher Roozgar
Position
Translator
Latest degree
Master
Other areas of specialty/work
Others
Street address
Ghaffari Ave.
City
Birjand
Province
South Khorasan
Postal code
9717853577
Phone
+98 56 3239 5641
Email
hadirooz@gmail.com

Sharing plan

Deidentified Individual Participant Data Set (IPD)
Yes - There is a plan to make this available
Study Protocol
Yes - There is a plan to make this available
Statistical Analysis Plan
Yes - There is a plan to make this available
Informed Consent Form
Yes - There is a plan to make this available
Clinical Study Report
Yes - There is a plan to make this available
Analytic Code
Yes - There is a plan to make this available
Data Dictionary
Not applicable
Title and more details about the data/document
Deidentified Individual Participant Data Set
When the data will become available and for how long
After the paper extracted from the research project is published and for 6 months
To whom data/document is available
to readers of the paper
Under which criteria data/document could be used
for research purposes
From where data/document is obtainable
personal correspondence with the corresponding author
What processes are involved for a request to access data/document
email
Comments